CONTENTS
Volume 10, 1991

Volume 10, Number 1 1991

CONTENTS

William A. Pryor	iii	The Radical View
		Original Contributions
Raphael Udassin, Ilana Ariel, Yuval Haskel, Nahum Kitrossky, Mordechai Chevion	1	Salicylate as an In Vivo Free Radical Trap: Studies on Ischemic Insult to the Rat Intestine
Paul N. Manson, Richard Jesudass, Louis Marzella, Gregory B. Bulkley, Michael J. Im, Kailash K. Narayan	7	Evidence for an Early Free Radical-Mediated Reperfusion Injury in Frostbite
George N. Smith, Mohammed Taj, Joan M. Braganza	13	On the Identification of a Conjugated Diene Component of Duodenal Bile as 9Z,11E-Octadecadienoic Acid
U. Rafałowska, E. Wałajtys-Rode	23	Peroxidation-Induced Changes of Histamine Metabolism and Transport of Its Precursor Histidine in Rat Brain Synaptosomes
Mark S. Paller, Marsha Patten	29	Hydrogen Peroxide and Ischemic Renal Injury: Effect of Catalase Inhibition
Rosa Pérez, Mónica López, Gustavo Barja de Quiroga	35	Aging and Lung Antioxidant Enzymes, Glutathione, and Lipid Peroxidation in the Rat
Tamaki Yamada, Christine Volkmer, Matthew B. Grisham	41	The Effects of Sulfasalazine Metabolites on Hemoglobin-Catalyzed Lipid Peroxidation
Cora J. Dillard, Miao-Lin Hu, Al L. Tappel	51	Vitamin E, Diethylmaleate and Bromotrichloromethane Interactions in Oxidative Damage In Vivo
Lance S. Terada, Jonathan A. Leff, David M. Guidot, Irene R. Willingham, John E. Repine	61	Inactivation of Xanthine Oxidase by Hydrogen Peroxide Involves Site-Directed Hydroxyl Radical Formation
Jawaid Iqbal, Philip Whitney	69	Use of Cyanide and Diethyldithiocarbamate in the Assay of Superoxide Dismutases

Terry D. Oberley, R. G. Allen, Janice L. Schultz, L. Jayne Lauchner 79 Antioxidant Enzymes and Steroid-Induced Proliferation of Kidney Tubular Cells

W. H. Koppenol 85 Thermodynamic Considerations on the Generation of Hydroxyl Radicals From Nitrous Oxide—No Laughing Matter

Book Review

William A. Pryor 89 *Gas Chromatography and Lipids*, by William W. Christie

91 Announcements & Calendar

I Oxygen Society News

Volume 10, Number 2 1991

CONTENTS

William A. Pryor iii The Radical View

Original Contributions

Beatriz Gonzalez Flecha, Susana Llesuy, Alberto Boveris 93 Hydroperoxide-Initiated Chemiluminescence: An Assay for Oxidative Stress in Biopsies of Heart, Liver, and Muscle

Michael Katrantzis, Mark S. Baker, Christopher J. Handley, Dennis A. Lowther 101 The Oxidant Hypochlorite (OCl^-), a Product of the Myloperoxidase System, Degrades Articular Cartilage Proteoglycan Aggregate

William G. E. J. Schoonen, A. Handayani Wanamarta, Joan M. van der Klei-van Moorsel, Cornelis Jakobs, Hans Joenje 111 Characterization of Oxygen-Resistant Chinese Hamster Ovary Cells. III. Relative Resistance of Succinate and α-Ketoglutarate Dehydrogenases to Hyperoxic Inactivation

William A. Antholine, B. Kalyanaraman, Jeffrey A. Templin, Robert W. Byrnes, David H. Petering 119 Spin-Trapping Studies of the Oxidation–Reduction Reactions of Iron Bleomycin in the Presence of Thiols and Buffer

Blaine C. White, Donald J. DeGracia, Gary S. Krause, John M. Skjaerlund, Brian J. O'Neil, Lawrence I. Grossman 125 Brain Nuclear DNA Survives Cardiac Arrest and Reperfusion

Oleg M. Panasenko, Tatyana V. Vol'nova, Ofelia A. Azizova, Yuriy A. Vladimirov 137 Free Radical Modification of Lipoproteins and Cholesterol Accumulation in Cells Upon Atherosclerosis

Review Articles

Shozo Yamamoto 149 "Enzymatic" Lipid Peroxidation: Reactions of Mammalian Lipoxygenases

James D. Adams, Jr., Ifeoma N. Odunze 161 Oxygen Free Radicals and Parkinson's Disease

171 Announcements & Calendar

I Oxygen Society News

Volume 10, Numbers 3/4 1991

CONTENTS

Symposium in Print

William A. Pryor, Susan Shipley Godber 173 Oxidative Stress Status: An Introduction

Mark J. Messina 175 Oxidative Stress Status and Cancer: Methodology Applicable for Human Studies

William A. Pryor, Susan Shipley Godber 177 Noninvasive Measures of Oxidative Stress Status in Humans

N. F. Boyd, V. McGuire 185 The Possible Role of Lipid Peroxidation in Breast Cancer Risk

K. N. Jeejeebhoy 191 In Vivo Breath Alkane as an Index of Lipid Peroxidation

Jason D. Morrow, L. Jackson Roberts, II 195 Quantification of Noncyclooxygenase Derived Prostanoids as a Marker of Oxidative Stress

Michael A. Trush, Thomas W. Kensler 201 An Overview of the Relationship Between Oxidative Stress and Chemical Carcinogenesis

Mark K. Shigenaga, Bruce N. Ames 211 Assays for 8-Hydroxy-2′-Deoxyguanosine: a Biomarker of In Vivo Oxidative DNA Damage

Charles Vincent Smith 217 Correlations and Apparent Contradictions in Assessment of Oxidant Stress Status In Vivo

Review Articles

Miral Dizdaroglu 225 Chemical Determination of Free Radical-Induced Damage to DNA

Peter Wardman
Alberta B. Ross 243 "Radiation Chemistry" Literature Compilations: Their Wider Value in Free Radical Research

249 Erratum

251 Announcements & Calendar

I Oxygen Society News

Volume 10, Number 5 1991

CONTENTS

Original Contributions

Paul Russell
Takahiko Yamada
Guo-tong Xu
Donita Garland
J. Samuel Zigler, Jr. 255 Effects of Naphthalene Metabolites on Cultured Cells From Eye Lens

Elena Serbinova
Valerian Kagan
Derick Han
Lester Packer 263 Free Radical Recycling and Intramembrane Mobility in the Antioxidant Properties of Alpha-Tocopherol and Alpha-Tocotrienol

Sudhir Mehrotra
Poonam Kakkar
P. N. Viswanathan 277 Mitochondrial Damage by Active Oxygen Species In Vitro

Michèle Bernier
Yoshiki Kusama
Marcel Borgers
Luc Ver Donck
Oscar Valdes-Aguilera
Douglas C. Neckers
David J. Hearse 287 Pharmacological Studies of Arrhythmias Induced by Rose Bengal Photoactivation

Sergio Giunta
Luciano Galeazzi
Giuseppe Groppa 297 An In Vitro Bacterial Model of Cytotoxicity to Living Cells Caused by Dopamine and 6-Hydroxydopamine Oxidation at Physiological pH

Amram Samuni
C. Murali Krishna
John Cook
Christopher D. V. Black
Angelo Russo 305 On Radical Production by PMA-Stimulated Neutrophils as Monitored by Luminol-Amplified Chemiluminescence

Review Articles

David R. Janero 315 Therapeutic Potential of Vitamin E Against Myocardial Ischemic-Reperfusion Injury

Maryvonne Ciavatti
Serge Renaud 325 Oxidative Status and Oral Contraceptive. Its Relevance to Platelet Abnormalities and Cardiovascular Risk

Simon P. Wolff
Zhen Y. Jiang
James V. Hunt 339 Protein Glycation and Oxidative Stress in Diabetes Mellitus and Ageing

353 Erratum

355 Announcements & Calendar

I Oxygen Society News

Volume 10, Number 6 1991

CONTENTS

Original Contributions

Geoffrey R. Fisher
Peter L. Gutierrez 359 The Reductive Metabolism of Diaziquone (AZQ) in the S9 Fraction of MCF-7 Cells: Free Radical Formation and NAD(P)H: Quinone-Acceptor Oxidoreductase (DT-Diaphorase) Activity

I. Emerit
S.H. Khan
H. Esterbauer 371 Hydroxynonenal, A Component of Clastogenic Factors?

Gerd O. Till
Hans P. Friedl
Peter A. Ward 379 Lung Injury and Complement Activation: Role of Neutrophils and Xanthine Oxidase

Paul J. Tortoriello
John F. Riebow
Shakuntala Advani
Wayne R. Bidlack 387 The Anomaly of Pyridine Nucleotide Synergism in Carbon Tetrachloride Metabolism

Marek Luciak
Lucjan Pawlicki
Józef Kędziora
Kazimierz Trznadel
Jan Błaszczyk
Andrzej Buczyński 397 Whole Blood Superoxide Anion Generation and Efficiency of Some Erythrocyte Antioxidant Systems During Recombinant Human Erythropoietin Therapy of Uremic Anemia

Grushenka H.I. Wolfgang
Robert A. Jolly
Thomas W. Petry 403 Diquat-Induced Oxidative Damage in Hepatic Microsomes: Effects of Antioxidants

Stephen R. Thom
M. Emin Elbuken 413 Oxygen-Dependent Antagonism of Lipid Peroxidation

Garry J. Handelman
Frederik J.G.M. van Kuijk
Alakananda Chatterjee
Norman I. Krinsky 427 Characterization of Products Formed During the Autoxidation of β-Carotene

Letters to the Editor

Barry Halliwell, Harparkash Kaur, Magnus Ingelman-Sundberg 439 Hydroxylation of Salicylate as an Assay for Hydroxyl Radicals: A Cautionary Note

S.P. Sharma, T.J. James 443 Existence of Bluish-White Fluorescing Age-Pigment — "Pre-Lipofuscin"

G.E. Eldred, M.L. Katz 445 The Lipid Peroxidation Theory of Lipofuscinogenesis Cannot Yet Be Confirmed

Book Review

William A. Pryor 449 *Free Radicals in Biology and Medicine*, edited by Barry Halliwell and John M.C. Gutteridge

451 Announcements & Calendar

453 Volume 10 List of Contents and Author Index

I Oxygen Society News